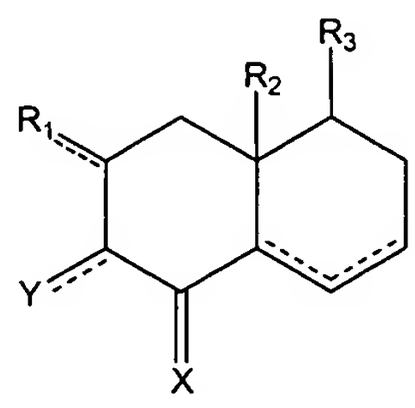
10/526692
BT01 Rec'd PCT/PT 03 MAR 2005

AMENDMENTS TO THE CLAIMS

1. (Original) A pest controlling composition comprising at least one compound of formula (I) or a tautomer thereof:



(I)

wherein:

X is selected from the group consisting of O, S or N-R_4;

when ------ is a single bond attached to Y, Y is selected from the group consisting of H, $[C(R_7)_2]_n$halo, $[C(R_7)_2]_nOR_5$, $[C(R_7)_2]_nSR_5$, $[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;

when ------ is a double bond attached to Y, Y is O;

when ------ is a single bond attached to R_1, R_1 is selected from the group consisting of H, OH, SH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_4-C_{10} cycloalkenylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy, C_2-C_{10} alkenyloxy, C_1-C_{10} alkylthio, C_2-C_{10} alkenylthio, $[C(R_7)_2]_n$halo, $[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;

when ------ is a double bond attached to R_1, R_1 is $CR_{1a}R_{1b}$ wherein R_{1a} and R_{1b} are independently selected from C_1-C_{10}alkyl;

R_2 and R_3 are independently selected from the group consisting of H, OH, SH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl,

C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_4-C_{10} cycloalkenylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy, C_2-C_{10} alkenyloxy, C_1-C_{10} alkylthio, C_2-C_{10} alkenylthio, $[C(R_7)_2]_n$halo, $[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;

each R_4 is independently selected from the group consisting of H, OH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy and C_2-C_{10} alkenyloxy;

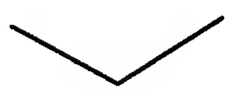
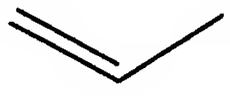
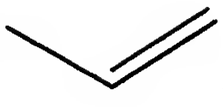
R_5 is selected from the group consisting of H, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, $(C=O)R_6$, PO_3R_8, SO_3R_8 and SO_2R_8;

R_6 is selected from the group consisting of H, OH, C_1-C_{10} alkoxy, C_1-C_{10} alkyl, C_2-C_{10} alkenyloxy, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_6-C_{10} aryloxy, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_3-C_6 cycloalkyloxy, C_3-C_6 cycloalkenyloxy, C_3-C_{10} heterocyclyl, C_3-C_{10} heterocyclyloxy, C_1-C_{10} alkylthio, C_1-C_{10} alkenylthio, C_6-C_{10} arylthio, C_3-C_6 cycloalkylthio, and C_3-C_{10} heterocyclylthio;

R_7 is selected from the group consisting of H, halogen, OR_5, SR_5, $N(R_4)_2$, $(C=O)R_6$, $(C=S)R_6$, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_3-C_{10} heterocyclyl, C_3-C_6 cycloalkyl, C_7-C_{12} arylalkyl, C_4-C_{12} heterocyclylalkyl, C_4-C_{10} cycloalkylalkyl, C_8-C_{13} arylalkenyl, C_5-C_{13} heterocyclylalkenyl, and NO_2;

R_8 is selected from the group consisting of H, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_5-C_{10} cycloalkylalkenyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heteocyclylalkyl and C_5-C_{13} heterocyclylalkenyl;

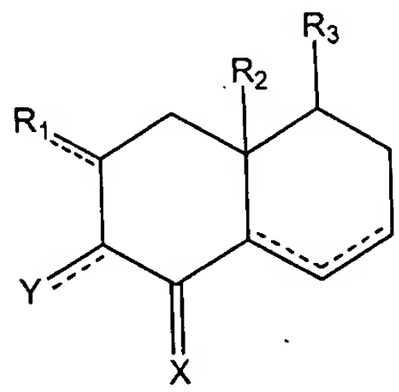
n is 0 or an integer selected from 1 to 5;

 represents  ,  or  ; and

wherein each alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl group is optionally substituted.

Claims 2-19 (Cancelled)

20. (Original) A pest controlling composition comprising more than one compound of formula (I) or a tautomer thereof:



(I)

wherein:

X is selected from the group consisting of O, S or N-R_4;

when ------ is a single bond attached to Y, Y is selected from the group consisting of H, $[C(R_7)_2]_n$halo, $[C(R_7)_2]_nOR_5$, $[C(R_7)_2]_nSR_5$, $[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;

when ------ is a double bond attached to Y, Y is O;

when ------ is a single bond attached to R_1, R_1 is selected from the group consisting of H, OH, SH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_4-C_{10} cycloalkenylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy, C_2-C_{10} alkenyloxy, C_1-C_{10} alkylthio, C_2-C_{10} alkenylthio, $[C(R_7)_2]_n$halo, $[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;

when ------ is a double bond attached to R_1, R_1 is $CR_{1a}R_{1b}$ wherein R_{1a} and R_{1b} are independently

selected from C_1-C_{10}alkyl;

R_2 and R_3 are independently selected from the group consisting of H, OH, SH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_4-C_{10} cycloalkenylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy, C_2-C_{10} alkenyloxy, C_1-C_{10} alkylthio, C_2-C_{10} alkenylthio, $[C(R_7)_2]_n$halo, $[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;

each R_4 is independently selected from the group consisting of H, OH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy and C_2-C_{10} alkenyloxy;

R_5 is selected from the group consisting of H, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, $(C=O)R_6$, PO_3R_8, SO_3R_8 and SO_2R_8;

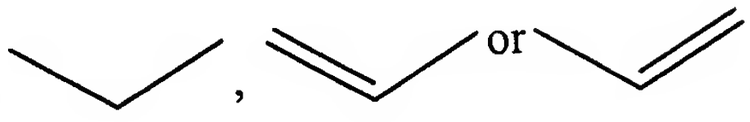
R_6 is selected from the group consisting of H, OH, C_1-C_{10} alkoxy, C_1-C_{10} alkyl, C_2-C_{10} alkenyloxy, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_6-C_{10} aryloxy, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_3-C_6 cycloalkyloxy, C_3-C_6 cycloalkenyloxy, C_3-C_{10} heterocyclyl, C_3-C_{10} heterocyclyloxy, C_1-C_{10} alkylthio, C_1-C_{10} alkenylthio, C_6-C_{10} arylthio, C_3-C_6 cycloalkylthio, and C_3-C_{10} heterocyclylthio;

R_7 is selected from the group consisting of H, halogen, OR_5, SR_5, $N(R_4)_2$, $(C=O)R_6$, $(C=S)R_6$, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_3-C_{10} heterocyclyl, C_3-C_6 cycloalkyl, C_7-C_{12} arylalkyl, C_4-C_{12} heterocyclylalkyl, C_4-C_{10} cycloalkylalkyl, C_8-C_{13} arylalkenyl, C_5-C_{13} heterocyclylalkenyl, and NO_2;

R_8 is selected from the group consisting of H, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_5-C_{10} cycloalkylalkenyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heteocyclylalkyl and C_5-C_{13}

heterocyclylalkenyl;

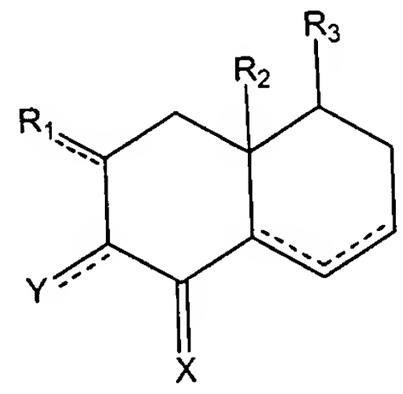
n is 0 or an integer selected from 1 to 5;

 represents  ; and

wherein each alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl group is optionally substituted.

Claims 21-25 (Cancelled)

26. (Original) A method for controlling pests, said method comprising exposing said pests to a pest-controlling effective amount of a compound of formula (I) or a tautomer thereof or a composition comprising at least one compound of formula (I) or a tautomer thereof:



(I)

wherein:

X is selected from O, S or N-R_4;

when ------ is a single bond attached to Y, Y is selected from the group consisting of H, $[C(R_7)_2]_n$halo, $[C(R_7)_2]_nOR_5$, $[C(R_7)_2]_nSR_5$, $[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;

when ------ is a double bond attached to Y, Y is O;

when ------ is a single bond attached to R_1, R_1 is selected from the group consisting of H, OH, SH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_4-C_{10} cycloalkenylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy, C_2-C_{10} alkenyloxy, C_1-C_{10} alkylthio, C_2-C_{10} alkenylthio, $[C(R_7)_2]_n$halo,

$[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;

when ------ is a double bond attached to R_1, R_1 is $CR_{1a}R_{1b}$ wherein R_{1a} and R_{1b} are independently selected from C_1-C_{10}alkyl;

R_2 and R_3 are independently selected from the group consisting of H, OH, SH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_4-C_{10} cycloalkenylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy, C_2-C_{10} alkenyloxy, C_1-C_{10} alkylthio, C_2-C_{10} alkenylthio, $[C(R_7)_2]_n$halo, $[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;

each R_4 is independently selected from the group consisting of H, OH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy and C_2-C_{10} alkenyloxy;

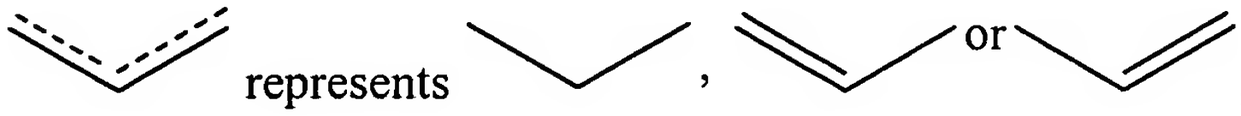
R_5 is selected from the group consisting of H, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, $(C=O)R_6$, PO_3R_8, SO_3R_8 and SO_2R_8;

R_6 is selected from the group consisting of H, OH, C_1-C_{10} alkoxy, C_1-C_{10} alkyl, C_2-C_{10} alkenyloxy, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_6-C_{10} aryloxy, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_3-C_6 cycloalkyloxy, C_3-C_6 cycloalkenyloxy, C_3-C_{10} heterocyclyl, C_3-C_{10} heterocyclyloxy, C_1-C_{10} alkylthio, C_1-C_{10} alkenylthio, C_6-C_{10} arylthio, C_3-C_6 cycloalkylthio, and C_3-C_{10} heterocyclylthio;

R_7 is selected from the group consisting of H, halogen, OR_5, SR_5, $N(R_4)_2$, $(C=O)R_6$, $(C=S)R_6$, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_3-C_{10} heterocyclyl, C_3-C_6 cycloalkyl, C_7-C_{12} arylalkyl, C_4-C_{12} heterocyclylalkyl, C_4-C_{10} cycloalkylalkyl, C_8-C_{13} arylalkenyl, C_5-C_{13} heterocyclylalkenyl, and NO_2;

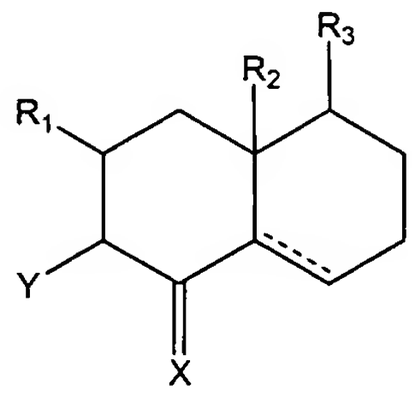
R_8 is selected from the group consisting of H, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_5-C_{10} cycloalkylalkenyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heteocyclylalkyl and C_5-C_{13} heterocyclylalkenyl;

n is 0 or an integer selected from 1 to 5;

 represents ; and

wherein each alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl group is optionally substituted.

27. (Currently amended) A method according to claim 3 ~~26~~ wherein the compound of formula (I) is a compound of formula (II):



(II)

wherein:

X is selected from the group consisting of O, S or N-R_4;

Y is selected from the group consisting of H, $[C(R_7)_2]_n$halo, $[C(R_7)_2]_nOR_5$, $[C(R_7)_2]_nSR_5$, $[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;

R_1, R_2 and R_3 are independently selected from the group consisting of H, OH, SH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_4-C_{10} cycloalkenylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy, C_2-C_{10} alkenyloxy, C_1-C_{10} alkylthio, C_2-C_{10} alkenylthio, $[C(R_7)_2]_n$halo, $[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;

each R_4 is independently selected from the group consisting of H, OH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy and C_2-C_{10} alkenyloxy;

R_5 is selected from the group consisting of H, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, $(C=O)R_6$, PO_3R_8, SO_3R_8 and SO_2R_8;

R_6 is selected from the group consisting of H, OH, C_1-C_{10} alkoxy, C_1-C_{10} alkyl, C_2-C_{10} alkenyloxy, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_6-C_{10} aryloxy, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_3-C_6 cycloalkyloxy, C_3-C_6 cycloalkenyloxy, C_3-C_{10} heterocyclyl, C_3-C_{10} heterocyclyloxy, C_1-C_{10} alkylthio, C_1-C_{10} alkenylthio, C_6-C_{10} arylthio, C_3-C_6 cycloalkylthio, and C_3-C_{10} heterocyclylthio;

R_7 is selected from the group consisting of H, halogen, OR_5, SR_5, $N(R_4)_2$, $(C=O)R_6$, $(C=S)R_6$, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_3-C_{10} heterocyclyl, C_3-C_6 cycloalkyl, C_7-C_{12} arylalkyl, C_4-C_{12} heterocyclylalkyl, C_4-C_{10} cycloalkylalkyl, C_8-C_{13} arylalkenyl, C_5-C_{13} heterocyclylalkenyl, and NO_2;

R_8 is selected from the group consisting of H, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_5-C_{10} cycloalkylalkenyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heteocyclylalkyl and C_5-C_{13} heterocyclylalkenyl;

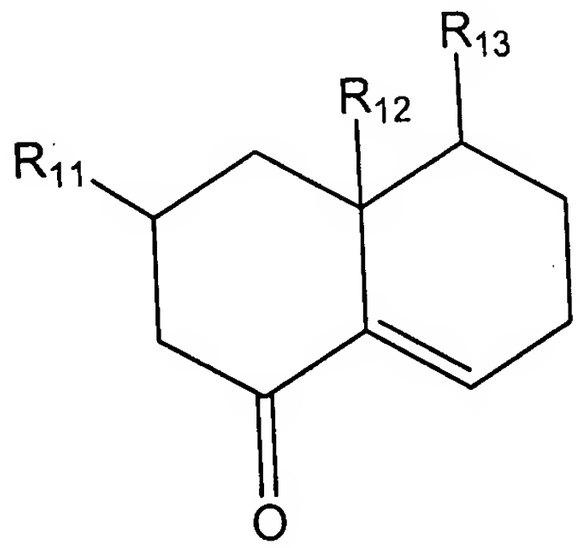
n is 0 or an integer selected from 1 to 5;

-------- represents a single or double bond; and

wherein each alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl group is optionally substituted.

28. (Cancelled)

29. (Currently amended) A method according to claim 3 ~~26~~, wherein at least one compound of formula (I) is a compound of formula (III):



(III)

wherein

R_{11} is selected from the group consisting of C_2-C_{10} alkenyl, C_7-C_{12} arylalkyl, C_6-C_{12} heteroarylalkyl and C_2-C_{10} alkenyloxy wherein each C_2-C_{10} alkenyl or C_2-C_{10} alkenyloxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups; and

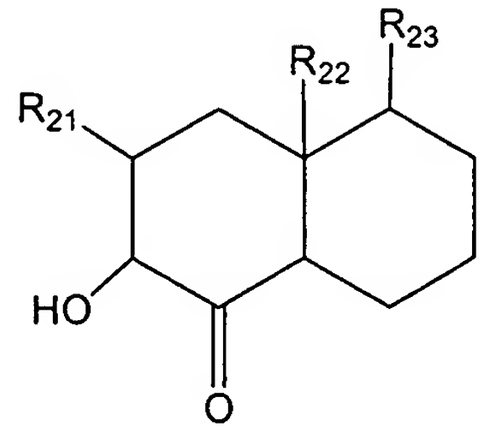
R_{12} and R_{13} are independently selected from the group consisting of H, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_3-C_{10} cycloalkyl, C_5-C_{10} heteroaryl, C_6-C_{12} heteroarylalkyl and C_1-C_{10} alkoxy, wherein each C_1-C_{10} alkyl and C_1-C_{10} alkoxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups.

30. (Currently amended) A method according to claim 5 ~~29~~, wherein R_{11} is C_2-C_{10} alkenyl optionally substituted with a hydroxy, nitro or thiol group or 1 to 3 halo groups, and R_{12} and R_{13} are independently selected from C_1-C_{10} alkyl optionally substituted with a hydroxy, nitro or thiol group or 1 to 3 halo groups.

31. (Currently amended) A method according to claim 3 ~~26~~ wherein at least one compound of formula (I) is eremophilone.

32. (Cancelled)

33. (Currently amended) A method according to claim 3 ~~26~~ wherein at least one compound of formula (I) is a compound of formula (IV):



(IV)

wherein R_{21}, R_{22} and R_{23} are independently selected from the group consisting of H, OH, SH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_4-C_{10} cycloalkenylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy, C_2-C_{10} alkenyloxy, C_1-C_{10} alkylthio, C_2-C_{10} alkenylthio, $[C(R_7)_2]_n$halo, $[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;

each R_4 is independently selected from the group consisting of H, OH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy and C_2-C_{10} alkenyloxy;

R_6 is selected from the group consisting of H, OH, C_1-C_{10} alkoxy, C_1-C_{10} alkyl, C_2-C_{10} alkenyloxy, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_6-C_{10} aryloxy, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_3-C_6 cycloalkyloxy, C_3-C_6 cycloalkenyloxy, C_3-C_{10} heterocyclyl, C_3-C_{10} heterocyclyloxy, C_1-C_{10} alkylthio, C_1-C_{10} alkenylthio, C_6-C_{10} arylthio, C_3-C_6 cycloalkylthio, and C_3-C_{10} heterocyclylthio;

R_7 is selected from the group consisting of H, halogen, OR_5, SR_5, $N(R_4)_2$, $(C=O)R_6$, $(C=S)R_6$, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_3-C_{10} heterocyclyl, C_3-C_6 cycloalkyl; C_7-C_{12} arylalkyl, C_4-C_{12} heterocyclylalkyl, C_4-C_{10} cycloalkylalkyl, C_8-C_{13} arylalkenyl, C_5-C_{13} heterocyclylalkenyl, and NO_2;

R_8 is selected from the group consisting of H, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12}

arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_5-C_{10} cycloalkylalkenyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heteocyclylalkyl and C_5-C_{13} heterocyclylalkenyl; and

n is 0 or an integer selected from 1 to 5;

wherein each alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl and heterocyclyl group is optionally substituted.

34. (Currently amended) A method according to claim 8 ~~33~~ wherein R_{21} is selected from the group consisting of C_2-C_{10} alkenyl, C_7-C_{12} arylalkyl, C_6-C_{12} heteroarylalkyl and C_2-C_{10} alkenyloxy wherein each C_2-C_{10} alkenyl or C_2-C_{10} alkenyloxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups; and

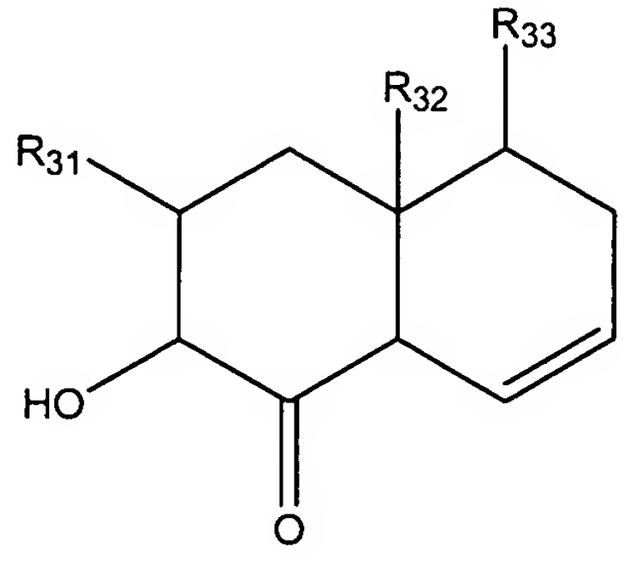
R_{22} and R_{23} are independently selected from the group consisting of H, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_3-C_{10} cycloalkyl, C_5-C_{10} heteroaryl, C_6-C_{12} heteroarylalkyl and C_1-C_{10} alkoxy, wherein each C_1-C_{10} alkyl and C_1-C_{10} alkoxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups.

35. (Currently amended) A method according to claim 9 ~~34~~ wherein R_{21} is C_2-C_{10} alkenyl, optionally substituted with a hydroxy, thiol or nitro group or 1 to 3 halo groups, and R_{22} and R_{23} are independently selected from C_1-C_{10} alkyl, optionally substituted with a hydroxy, thiol or nitro group or 1 to 3 halo groups.

36. (Currently amended) A method according to claim 3 ~~26~~ wherein at least one compound of formula (I) is 8-hydroxy-1(10)dihydroeremophilone.

37. (Cancelled)

38. (Currently amended) A method ~~composition~~ according to claim 3 ~~1~~ comprising at least one compound of formula (V):



(V)

wherein R_{31} is selected from the group consisting of C_2-C_{10} alkenyl, C_7-C_{12} arylalkyl, C_6-C_{12} heteroarylalkyl and C_2-C_{10} alkenyloxy wherein each C_2-C_{10} alkenyl or C_2-C_{10} alkenyloxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups; and

R_{32} and R_{33} are independently selected from the group consisting of H, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_3-C_{10} cycloalkyl, C_5-C_{10} heteroaryl, C_6-C_{12} heteroarylalkyl and C_1-C_{10} alkoxy, wherein each C_1-C_{10} alkyl and C_1-C_{10} alkoxy is optionally substituted with 1 to 3 halo, hydroxy, thiol or nitro groups.

39. (Currently amended) A method ~~composition~~ according to claim 12 ~~38~~ wherein R_{31} is C_2-C_{10} alkenyl optionally substituted with a hydroxy, nitro or thiol group or 1 to 3 halo groups, and R_{32} and R_{33} are independently selected from C_1-C_{10} alkyl optionally substituted with a hydroxy, nitro or thiol group or 1 to 3 halo groups.

40. (Currently amended) A method ~~composition~~ according to claim 3 ~~1~~ wherein at least one compound of formula (I) is 8-hydroxyeremophila-1,11-dienone.

41. (Currently amended) A method according to claim 3 ~~26~~ wherein the composition comprises an extract containing at least one compound of formula (I) obtained from a volatile oil bearing plant from the Myoporaceae family.

42. (Cancelled)

43. (Cancelled)

44. (Currently amended) A method according to claim 3 ~~26~~ wherein the pest-controlling effective amount is a pesticidally effective amount.

45. (Currently amended) A method according to claim 3 ~~26~~ wherein the pest-controlling effective amount is a pest-repelling effective amount.

46. (Currently amended) A method according to claim 3 ~~26~~ wherein the pest-controlling effective amount is a antifeedant effective amount.

47. (Currently amended) A method according to claim 3 ~~26~~ wherein the pests are selected from the group consisting of insects, arachnids, helminths and molluscs.

48. (Currently amended) A method according to claim 3 ~~26~~ wherein the pests are selected from the group consisting of termites, earwigs, cockroaches and wood borer beetles and their larvae.

49. (Currently amended) A method according to claim 3 ~~26~~ wherein the pests are wood associated pests.

50. (Currently amended) A method according to claim 21 ~~49~~ wherein the wood associated pests are selected from the group consisting of termites and wood borer beetles.

51. (Currently amended) A method according to claim 22 ~~50~~ wherein the wood associated pests are termites.

52. (Currently amended) A method according to claim 3 ~~26~~ wherein pests are exposed to the pest-controlling effective amount of a compound of formula (I) or a composition comprising at least one compound of formula (I) by applying the compound or composition to a site of infestation, a potential site of infestation, a habitat of the pest or a potential habitat of the pest.

53. (Currently amended) A method according to claim 24 ~~52~~ wherein the compound or composition is applied to a surface or impregnated into a material or article of manufacture.

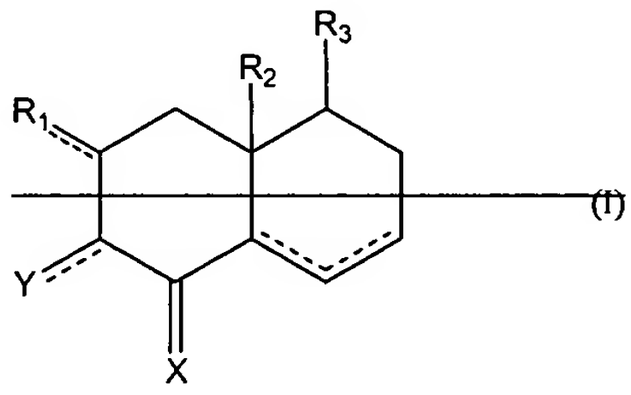
54. (Currently amended) A method according to claim 25 ~~53~~ wherein the compound or composition is applied to a surface by spraying, coating or painting the surface.

55. (Currently amended) A method according to claim 26 ~~54~~ wherein the surface is a soil surface, timber, buildings, wooden articles of manufacture or a physical barrier.

56. (Currently amended) A method according to claim 27 ~~55~~ wherein the material or article of manufacture is soil, timber, timber or wooden products or buildings or parts of buildings.

57. (Currently amended) A method according to claim 24 ~~52~~ wherein the compound or composition is applied in a band or furrow around a site of infestation or potential infestation or is mixed with a layer of soil at a site of infestation or a potential site of infestation.

58. (Currently amended) A material or article of manufacture for use in pest control that is coated or impregnated with at least one compound of formula (I) as defined in claim 1 or a tautomer thereof or with a composition containing at least one compound of formula (I) as defined in claim 1 or a tautomer thereof and wherein the article of manufacture is selected from the group consisting of a pest shield, a pest barrier, soil and a timber product.~~:~~



~~wherein:~~

~~X is selected from the group consisting of O, S or N-R_4;~~

~~when ____ is a single bond attached to Y, Y is selected from the group consisting of H, $[C(R_7)_2]_n$halo, $[C(R_7)_2]_nOR_5$, $[C(R_7)_2]_nSR_5$, $[C(R_7)_2]_n(C=O)R_6$, $[C(R_7)_2]_n(C=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_n(C=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;~~

~~when ____ is a double bond attached to Y, Y is O;~~

~~when ____ is a single bond attached to R_1, R_1 is selected from the group consisting of H, OH, SH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_4-C_{10} cycloalkenylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy, C_2-C_{10} alkenyloxy, C_1-C_{10} alkylthio, C_2-C_{10} alkenylthio, $[C(R_7)_2]_n$halo,~~

~~$[C(R_7)_2]_nC(=O)R_6$, $[C(R_7)_2]_nC(=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_nC(=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;~~

~~when ____ is a double bond attached to R_1, R_1 is $CR_{1a}R_{1b}$ wherein R_{1a} and R_{1b} are independently selected from C_1-C_{10}alkyl;~~

~~R_2 and R_3 are independently selected from the group consisting of H, OH, SH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_4-C_{10} cycloalkenylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy, C_2-C_{10} alkenyloxy, C_1-C_{10} alkylthio, C_2-C_{10} alkenylthio, $[C(R_7)_2]_n$halo, $[C(R_7)_2]_nC(=O)R_6$, $[C(R_7)_2]_nC(=S)R_6$, $[C(R_7)_2]_nN(R_4)_2$, $[C(R_7)_2]_nC(=NR_4)R_6$, $[C(R_7)_2]_nNO_2$ and $[C(R_7)_2]_nNR_4OR_8$;~~

~~each R_4 is independently selected from the group consisting of H, OH, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, C_1-C_{10} alkoxy and C_2-C_{10} alkenyloxy;~~

~~R_5 is selected from the group consisting of H, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heterocyclylalkyl, C_5-C_{13} heterocyclylalkenyl, $(C=O)R_6$, PO_3R_8, SO_3R_8 and SO_2R_8;~~

~~R_6 is selected from the group consisting of H, OH, C_1-C_{10} alkoxy, C_1-C_{10} alkyl, C_2-C_{10} alkenyloxy, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_6-C_{10} aryloxy, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_3-C_6 cycloalkyloxy, C_3-C_6 cycloalkenyloxy, C_3-C_{10} heterocyclyl, C_3-C_{10} heterocyclyloxy, C_1-C_{10} alkylthio, C_1-C_{10} alkenylthio, C_6-C_{10} arylthio, C_3-C_6 cycloalkylthio, and C_3-C_{10} heterocyclylthio;~~

~~R_7 is selected from the group consisting of H, halogen, OR_5, SR_5, $N(R_4)_2$, $(C=O)R_6$, $(C=S)R_6$, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_3-C_{10} heterocyclyl, C_3-C_6 cycloalkyl, C_7-C_{12} arylalkyl, C_4-C_{12} heterocyclylalkyl, C_4-C_{10} cycloalkylalkyl, C_8-C_{13} arylalkenyl, C_5-C_{13} heterocyclylalkenyl, and NO_2;~~

~~R_8 is selected from the group consisting of H, C_1-C_{10} alkyl, C_2-C_{10} alkenyl, C_6-C_{10} aryl, C_7-C_{12} arylalkyl, C_8-C_{13} arylalkenyl, C_3-C_6 cycloalkyl, C_3-C_6 cycloalkenyl, C_4-C_{10} cycloalkylalkyl, C_5-C_{10} cycloalkylalkenyl, C_3-C_{10} heterocyclyl, C_4-C_{12} heteocyclylalkyl and C_5-C_{13} heterocyclylalkenyl;~~

~~n is 0 or an integer selected from 1 to 5;~~

 ~~represents~~  ~~;and~~

~~wherein each alkyl, alkenyl, alkynyl, cycloalkyl, cyclolkenyl, aryl and heterocyclyl group is optionally substituted.~~

Claims 59-76 (Cancelled)

77. A pest control coating comprising a composition according to claim 1.

78. (Cancelled)

79. (Currently amended) A method of combating an already existing wood associated pest infestation comprising applying a composition according to claim 1 ~~or claim 20 or a coating of claim 77 or claim 78~~ to a wood associated pest affected surface.

80. (Cancelled)

81. (Cancelled)

82. (New) A method of combating an already existing wood associated pest infestation comprising applying a coating of claim 31 to a wood associated pest affected surface.